User Guide for High School Educators

Bioethics Commission Educational Materials

The Presidential Commission for the Study of Bioethical Issues (Bioethics Commission) has developed educational materials for use in traditional and nontraditional educational settings to provide educators with contemporary examples of real-life ethical challenges addressed by a presidential commission. The materials are designed to be applicable to a wide variety of disciplines at the high school, undergraduate, graduate, and professional levels as well as continuing education and professional training courses, graduate or professional school seminars, workplace discussions, and other settings.

The purpose of this guide is to highlight the most relevant materials for high school educators and illustrate how they might be integrated into their curricula. This list is not exhaustive, rather, it is meant to serve as a quick reference to the most relevant materials.

Some of the materials include references to the Common Core Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects and the Next Generation Science Standards. These references are meant to suggest how a certain material might align with national educational standards.

Deliberative Scenarios

The Deliberative Scenarios are a set of educational materials designed to foster students' deliberative skills in the classroom by presenting them with an open policy question for which the classroom must collaborate to find a solution. The *Guide to Classroom Deliberation for Students and Teachers* provides further background on classroom deliberation. In *Law Enforcement Access to a University's Genetic Database*, students are asked to set a policy addressing requests from law enforcement to access a university's genetic database that was developed primarily for biomedical research. In *The Use of Prescription Stimulants for Enhanced Academic Performance*, students are tasked with developing a policy to respond to reports of nonprescription use of prescription stimulants in a county's schools. Each scenario is accompanied by a *Teacher Companion* that provides helpful resources and strategies specific to the scenario as well as references to suggested national educational standards.

Public Health Preparedness

A collection of Public Health Case Studies describes cases based on the Bioethics Commission's reports that examine ethical questions and tensions that public health professionals might encounter in practice and research. Case study topics include the ethical use of liberty-restricting public health measures and communications during a public health emergency.

The Classroom Discussion Guide on Ethics and Public Health Emergencies provides structured questions to guide group discussion about ethical challenges that can arise during public health emergencies, focusing in particular on the 2014-2015 Ebola epidemic in western Africa.

Neuroscience

Technological developments in neuroscience give rise to new ethical questions about the role of neuroscience in education, research, and law. The Classroom Discussion Guide on Ethics and Neuroscience poses questions to explore the topics of cognitive enhancement, informed consent, and neuroscience in the courtroom.

Informed Consent

The informed consent process in research serves two primary purposes: to educate potential participants about the potential benefits and risks of participation and to establish voluntary willingness to participate. The Informed Consent Background module describes the ethical underpinnings of informed consent in human subjects research, the history of informed consent and how it came to be regulated in the United States, and common implementation challenges for the informed consent process. Informed Consent in *Anticipate and Communicate* provides information and analysis about informed consent processes for research or other activities that could result in incidental and secondary findings. While the full module might be too lengthy for the high school setting, relevant portions from the module can be excerpted. We would recommend a combination of the introduction, background, and any single section of the following: Question 1 (Section V. Discussion Questions), Scenario E or F (Section VI. Problem-Based Learning), Exercise A (Section VII. Exercises).

Privacy

Research participants take on risk to benefit others, including risks to their privacy, for example, by sharing personal medical information with researchers, and allowing the collection of biological samples that might provide deeply personal information. Protecting individuals' privacy is one way of minimizing potential harms to participants, such as the unauthorized disclosure of private health information.

The Privacy Background module addresses the ethical reasoning that supports privacy protection, existing legal protections, and some challenges to privacy protection. The Privacy in *Privacy and Progress* module explores the importance of privacy in whole genome sequencing, and the inherent tension between protecting individuals' privacy and the supporting the progress of promising genomic research. While the full module might be too lengthy for the high school setting, relevant portions from the module can be excerpted. We would recommend a combination of the introduction, background, and any single section of the following: Scenario A (Section VI. Problem-Based Learning) or Exercise A (Section VII. Exercises).